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CLAIMS:

1.   A method of storing and retrieving items, comprising:
          grouping said items into one or more groups of
5 said items;
          recording the content of each of said groups;
          comparing a batch of one or more orders for said
items with the recorded content of said groups in order to
locate a matching group from said groups that matches said
10 batch or orders; and
          retrieving said matching group in order to fill
said batch of orders.

2.   A method as claimed in claim 1, wherein said groups of
15 items constitute a plurality of sets of groups, each set
of groups comprising one or more groups of equal numbers
of items.

3.   A method as claimed in claim 2, wherein each of said
20 groups has the same number of items.

4.   A method as claimed in claim 1, wherein said batch of
orders comprises a consecutively received plurality of
orders.

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5.   A method as claimed in claim 1, including locating
each of said groups of items in or on a container so that
each of said groups can readily be transported until a
suitable batch of orders is received and retrieved when a
30 suitable batch of orders has been received.

6.   A method as claimed in claim 1, including recording
the order of said items in each of said groups, and
matching said batch of orders with a matching group on the
35 basis of both the content and sequence of items in said
order and in said matching group of said items.

7. A method as claimed in claim 1, wherein, if none of
the existing groups of items matches a batch of orders,
the method includes reducing the size of said batch of
orders until said reduced batch matches a portion of at
least one of said groups of items, and deeming said
portion of said group of items to constitute said matching
group.

8. A method as claimed in claim 7, including subsequently
grouping the remaining items of said group with other
items to form new groups of said items.

9. A method as claimed in claim 1, wherein, if none of
the existing groups of items matches a batch of orders,
the method includes replacing at least one of said orders
with another order from outside said batch of orders to
form a modified batch of orders, and then matching said
modified batch of orders with a matching group on the
basis of both the content and sequence of items in said
order and in said matching group of said items.

10. A method as claimed in claim 1, including optimising
the size of said groups.

11. A method as claimed in claim 1, including storing in
a computer database data indicative of the incoming items
and the location in which each of said incoming item is
stored.

12. A method of storing and retrieving items, comprising:
        grouping said items into one or more groups of
said items;
        recording the content of each of said groups;
        comparing a batch of orders for said items with
the recorded content of said groups in order to locate a
matching group from said groups that most closely matches
said batch or orders;

retrieving said matching group; and

modifying said matching group if necessary to exactly match said batch of orders;

whereby said batch of orders can be filled.

13. An apparatus for storing and retrieving items, comprising:

data storage means for recording the location and content of each of a plurality of groups of said items;

data processing means for receiving information corresponding to a plurality of orders and for grouping at least some of said orders into a batch of orders and comparing said batch of orders with said contents of said groups of items in order to identify and locate a matching group; and

communication means for communicating the identity of said matching group.

14. An apparatus as claimed in claim 13, includi.ℊ: retrieval means for receiving the identity of said matching group from said communication means and retrieving said matching group.

15. An apparatus as claimed in claim 14, wherein said retrieval means is also a storage means, for storing each of said groups of items as directed by said data processing means.

16. A method of storing and retrieving items, comprising:

storing said items into one or more groups of said items;

recording the location of each of said items according to at least group;

comparing an order or orders for a plurality of requested items with said recorded locations; and

locating as many of said requested items as possible in a first of said groups and then, if any

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requested items are not located in said first of said
groups, locating as many previously remaining requested
items as possible in each of subsequent ones of said
groups;

5   whereby once all of said requested items have
been located, requested items can be retrieved to fill
said order or orders.

17. A method as claimed in claim 16, including retrieving
10   said requested items and subsequently treating said
retrieved items as no longer stored in any of said groups.

18. A method as claimed in claim 16, including
designating the group with the greatest number of the
15   requested items as the first group.

19. A method as claimed in claim 16, including checking
said groups sequentially for pre.... .nlocated items,
or in an order that maximizes .... of items located
20   in each successive group.

20. A method as claimed in claim 16, including
determining for a number of possible assignations of said
first group and order of subsequent groups the total
25   number of groups required to locate all of said requested
items, and then choosing the assignation of first group
and order of subsequent group that either minimizes the
total number of groups from which the requested items are
retrieved or minimizes the distance required to be
30   travelled between groups to retrieve said requested items.

21. A method as claimed in claim 20, wherein said number
of possible assignations of said first group and order of
subsequent groups constitutes all possible assignations of
35   said first group and order of subsequent groups.

22. An apparatus for storing and retrieving items,

comprising:

one or more storages, each for storing a
respective group of said items;

a data storage for recording the location of each
5   of said items according to at least group;

a data processor for comparing an order or orders
for a plurality of requested items with said recorded
locations, and for locating as many of said requested
items as possible in a first of said groups and then, if
10   any requested items are not located in said first of said
groups, locating as many previously remaining requested
items as possible in each of subsequent ones of said
groups;

whereby said apparatus is operable to locate all
15   of said requested items for subsequent retrieval.

23.   An apparatus as claimed in claim 22, including a
computer having said data storage and said data processor.

20   24.   An apparatus as claimed in claim 22, wherein each of
said storages includes a signal means to identify to a
user the location of a located item, or an ejector for
ejecting a requested item.

25   25.   An apparatus as claimed in claim 22, wherein each of
said storages includes a signal means in the form of a
lamp to identify to a user the location of a located item.

26.   An apparatus as claimed in claim 22, wherein said
30   apparatus is operable to send a data signal to an
automated item retriever indicative of the location of a
respective requested item, so that said requested items
can be retrieved automatically.

35   27.   An apparatus as claimed in claim 22, wherein said
data processor is operable to check groups sequentially
for previously unlocated items.

28. An apparatus as claimed in claim 22, wherein said
data processor is operable to check groups in an order
that maximizes the number of items located in each
5   successive group.

29. An apparatus as claimed in claim 22, wherein said
data processor is operable to determine a number of
possible assignations of said first group and order of
10 subsequent groups, and to choose the assignation of first
group and order of subsequent group that either minimizes
the total number of groups from which the requested items
are retrieved or minimizes the distance to be travelled
between groups to retrieve said requested items.

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30. An apparatus as claimed in claim 29, wherein said
number of possible assignations of said first group and
order of subsequent groups constitutes all possible
assignations of said first group and order of subsequent
20 groups.

31. A computer readable medium with computer program
portions for controlling a computer to perform the method
defined in any one of claims 1, 12 or 16.